AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior listings of claims in the application.

1. (Currently Amended) A method of aiding in the identification of an infecting pathogen comprising the steps of:

a) isolating mRNA from one or more antigen presenting dendritic cells from an infected mammal; and

b) analyzing gene expression profile in said dendritic cells,

wherein ~~increased or decreased~~ a statistically significant increase or decrease in the expression of at least one pathogen-specific gene relative to the expression of the pathogen-specific gene(s) in a reference gene expression profile aids in identification of the infecting pathogen.

2.-4. (Cancelled)

5. (Currently Amended) A method of aiding in the identification of an infecting pathogen in a mammal comprising the steps of:

a) contacting immature antigen presenting dendritic cells with a pathogen or an immunogenic component thereof;

b) isolating and labeling mRNA from said dendritic cells;

c) detecting labeled mRNA from said dendritic cells such that a gene expression profile is produced;

d) analyzing the gene expression profile relative to one or more reference gene expression profile(s) such that at least one pathogen-specific gene is identified;

e) isolating mRNA from one or more dendritic cells from an infected mammal; and

f) determining expression of at least one pathogen-specific gene identified in step d) in the isolated mRNA of step e),

wherein ~~increased or decreased~~ a statistically significant increase or decrease in the expression of the pathogen-specific gene(s) relative to the expression of the pathogen-specific gene(s) in a reference gene expression profile aids in identification of the infecting pathogen in the mammal.

6.-8. (Cancelled)

9. (Currently Amended) A method of aiding in the diagnosis of infection by a pathogen in a mammal comprising the steps of:

a) isolating mRNA from one or more antigen presenting dendritic cells from the mammal;

b) analyzing gene expression profile in said dendritic cells,

wherein ~~increased or decreased~~ a statistically significant increase or decrease in the expression of at least one pathogen-specific gene relative to the expression of the pathogen-specific gene(s) in a reference gene expression profile aids in diagnosis of infection by the pathogen.

10.-50. (Cancelled)

51. (Currently Amended) A method of aiding in the identification of an infecting ~~a~~ pathogen comprising the steps of:

a) contacting one or more immature antigen presenting dendritic cells with the pathogen;

b) isolating mRNA from said dendritic cells; and

c) determining a gene expression profile in said dendritic cells and analyzing the gene expression profile relative to one or more reference gene expression profile(s) such that at least one pathogen-specific gene is identified;

d) isolating mRNA from one or more dendritic cells from an infected mammal;

e) determining expression of at least one pathogen-specific gene identified in step c) in the isolated mRNA of step d),

wherein ~~increased or decreased~~ a statistically significant increase or decrease in the expression of the pathogen-specific gene(s) relative to the expression of the pathogen-specific gene(s) in a reference gene expression profile aids in the identification of the infecting pathogen.

52.-58. (Cancelled)

59. (Currently Amended) A method of aiding in the diagnosis of infection by a pathogen in a mammal comprising the steps of:

a) contacting immature antigen presenting dendritic cells with the pathogen or an immunogenic component thereof;

b) isolating mRNA from said dendritic cells;

c) determining gene expression profile in said dendritic cells;

d) analyzing the gene expression profile relative to one or more reference gene expression profile(s) such that at least one pathogen-specific gene is identified;

e) isolating mRNA from one or more dendritic cells in an infected mammal; and

f) determining expression of at least one pathogen-specific gene identified in step d) in the isolated mRNA of step e),

wherein ~~increased or decreased~~ a statistically significant increase or decrease in the expression of the pathogen-specific gene(s) relative to the expression of pathogen specific gene(s) in a reference gene expression profile aids in diagnosis of infection by the pathogen.

Rejection Under 35 U.S.C. § 103

The Examiner continues to reject claims 1, 5, 9, 51 and 59 under 35 U.S.C. § 103 as unpatentable over Cummings *et al.* (Genomics, 6(5):513-525; Sept-Oct 2000; "*Cummings*") in view of Exley *et al.* (US 2002/0164331; "*Exley*").

Applicants traverse for the reasons of record. Neither *Cummings* nor *Exley* disclose a method of aiding in the identification or diagnosis of a pathogen based in the expression of pathogen-specific genes in an antigen presenting dendritic cell. Thus, the references, even if combined, do not teach the claimed invention.

Exley relates to compounds and methods for expanding specific subpopulations of T cells, and diagnostic and therapeutic applications for such compounds and methods (*Exley*, abstract). Applicants previously submitted that T cells are not dendritic cells, and provided evidence for this proposition. (See Exhibit B to Amendment filed on February 1, 2005.) The Examiner was not persuaded by this argument. Thus, although Applicants maintain that T cells are not dendritic cells, in order to expedite prosecution, Applicants have amended the claims to refer to "antigen presenting dendritic cells." Applicants submit that even if one were to erroneously assume that T cells are dendritic cells, T cells are not antigen presenting cells. Nothing in *Exley* discloses or suggests the desirability of monitoring antigen presenting dendritic cells with regard to infection.

Further, Applicants respectfully submit that there is no motivation to combine the teachings of *Cummings* with the teachings of *Exley*. While *Exley* states that there is a need to monitor T cells in mammals for infection, *Exley* does not teach or suggest the identification of pathogen-specific genes from T cells or antigen presenting dendritic cells. Instead, *Exley* refers to the detection of a specific subpopulation of T cells and to the identification of genes involved in T cell activation, not in the identification of pathogen-specific genes in T cells or antigen presenting dendritic cells. Thus, there is nothing that would motivate a person of ordinary skill in the art to combine the teachings of *Exley* with the teachings of *Cummings* to reach at the invention of the pending claims.

Conclusion

In view of the above amendment and argument, Applicants believe the pending application is in condition for allowance, and respectively request that this application be passed to issue. If the

Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Applicant believes no fee, other than the fee due with the Notice of Appeal, is due with this response. However, if an additional fee is due, please charge our Deposit Account No. 18-1945, from which the undersigned is authorized to draw, under Order No. WIBL-P01-548.

Dated: July 5, 2005

Respectfully submitted,

By _____

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